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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,223	10/08/2003	Kazuhiro Asada	117085	4047

25944 7590 06/05/2006

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EXAMINER

KANG, JULIANA K

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/680,223	Applicant(s) ASADA ET AL.	
	Examiner Juliana K. Kang	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/21/06, 4/12/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 10-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's communication filed on April 12, 2006 and March 21, 2006 has been carefully studied by the Examiner. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Thus this action is made final.

Claim Objections

2. Claim 5 is objected to because of the following informalities: Claim 5 recites the limitation "the housing of an optical connector of the other party" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hakogi et al (U.S. Patent 6,135,644).

Regarding claims 1 and 2, Hakogi et al disclose an optical connector (200, 300) implemented and fixed to a wiring substrate (PCB, see column 3 lines 41, 43), comprising: a surface-implemented type optical element (200); and a first housing (210) having a first housing body portion having: an element storing depression (a semiconductor laser is disposed inside the housing [see column 3 lines 37-39] so an

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element storing depression has to be present inside the housing), a guide sleeve portion (220) for guiding a fiber; and a first mounting portion (230, connecting terminals) for mounting the first housing body portion onto the main surface of the wiring substrate, wherein the first mounting portion is disposed only at opposing edges of the first housing body(see Fig. 6A), and since the first housing portion is mounted on the wiring board, the first housing portion can be freely adjusted in the planar direction of the wiring substrate. Hakogi et al's mounting portion is terminals and thus can be fixed to the wiring board by soldering or with resin.

Regarding claims 5 and 6, Hakogi et al disclose a second housing (300) mounted and fixed to the wiring substrate (see column 5 lines 41-43) by partially covering the front of the first housing (see Fig. 6A) and for guiding an optical fiber connector (see column 5 lines 49-53). The second housing has a lock portion (shown in Fig. 6A) associated with the optical connector that is inserted into the second housing.

Regarding claim 7, Hakogi et al also teach using threaded protuberance (see column 5 lines 41-42).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakogi et al and further in view of Tonai et al (U.S. Patent 6,234,686 B1).

As described above Hakogi et al disclose the claimed invention except a through-hole for fixing the first housing on the wiring substrate. Tonai et al teach mounting a light-emitting module on a substrate using through holes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply through holes of Tonai et al in Hakogi et al to mount the optical module on the wiring substrate at predetermined positions.

7. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakogi et al and further in view of Ohm (US 2003/0165304 A1).

Hakogi et al teach the part of the housing that is exposed to the outside of the second housing but does not teach that the first housing contains a material having a higher conductivity than that of the second housing. Ohm teaches using a housing that is thermally conductive to provide heat dissipation for an optical components. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a housing (first housing) enclosing the optical components with a good thermal conductivity material as taught by Ohm in Hakogi et al to protect the optical components from heat.

8. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakogi et al.

Hakogi et al do not teach that the first housing contains a material which does not melt at a processing temperature fro surface implementing the optical element thereto.

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Hakogi et al teach the surface mounting the terminals (230) of the first housing onto the wiring board. Thus using the first housing having a material which does not melt at a processing temperature for surface implementing the optical element would have been obvious to one having ordinary skill in the art to protect the optical module from damaging during mounting process.

Response to Arguments

9. Applicant's arguments with respect to claims 1-3, and 5-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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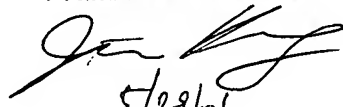
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (571) 272-2348. The examiner can normally be reached on Monday through Friday 9:00-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JULIANA KANG
PRIMARY EXAMINER



5/29/06